IN THE CLAIMS

Claim 1 (original): A method to reduce amount data to be sent in a tracking system of a mobile station (MTT) having a positioning device to obtain positioning data, and the mobile station (MTT) and the server (S) perform the following steps:

- the mobile station (MTT) sends its dynamic state parameters including at least the position and velocity, which are derived from the positioning measurements, to server (S), characterized in that

-the mobile station (MTT) computes an error criterion based on said sent dynamic state and current dynamic state, which is derived from new positioning measurements, such that the error criterion is calculated based on at least sent and current velocities,

the mobile station (MTT) sends a set of new dynamic state parameters, when the said error criterion is over a predefined limit.

Claim 2 (currently amended): A ~~The~~ method according to the claim 1, characterized in that the server (S) calculates predicted dynamic state, using the dynamic state parameters sent by (MTT) when the position information is needed.

Claim 3 (currently amended): A ~~The~~ method according to the claim 1 ~~or 2~~, characterized in that the mobile station (MTT) calculates predicted dynamic state from the said sent dynamic state parameters and uses this predicted dynamic state in the error criterion.

Claim 4 (currently amended): A ~~The~~ method according to claim 1 ~~any preceding claim~~, characterized in that the mobile station

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(MTT) sends at least one position measurement, velocity and at least second order derivatives of the position.

Claim 5 (currently amended): A The method according to claim 1 any preceding claim, characterized in that the mobile station (MTT) is including with the dynamic state parameters information about proactive incidents, for example turning signal, or brake light.

Claim 6 (currently amended): A The method according to claim 1 any preceding claim, characterized in that the calculation of the error criterion takes into account the difference between the sent or predicted and current velocities.

Claim 7 (currently amended): A The method according to claim 1 any of the claims 1 to 5, characterized in that the calculation of the error criterion takes into account angle between the sent or predicted and current velocities.

Claim 8 (currently amended): A The method according to claim 1 any of the claims 1 to 5, characterized in that the calculation of the error criterion takes into account the at least second order time derivatives of position history.

Claim 9 (currently amended): A The method according to claim 5 any of the claim 5 to 7, characterized in that the calculation of the error criterion takes into account the difference between predicted and current positions.

Claim 10 (currently amended): A The method according to claim 1 any of the claim 1 to 9, characterized in that the message sent by the mobile station (MTT) includes the necessary information needed to recover the same data in the mobile station (MTT) and in the receiving server (S) after one or more messages being missing, and the recovery needs one or more, but limited amount of messages.

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Claim 11 (original): A mobile device (MTT) for use in a tracking system, comprising a positioning device to obtain positioning data and,

- means to send data to a server (S), characterized in that the device (MTT) comprises

- means to send its dynamic state parameters including at least the position and velocity, which are derived from the positioning measurements, to server (S),

- means to compute an error criterion based on said sent dynamic state and current dynamic state, which is derived from new positioning measurements, such that the error criterion is calculated based on at least sent and current velocities, and

- means to send a set of new dynamic state parameters, when the said error criterion is over a predefined limit.

Claim 12 (original): A arrangement to reduce amount data to be sent in a tracking system of a mobile station (MTT) having a positioning device to obtain positioning data, and the mobile station (MTT) and the server (S) adapted to perform the following steps:

- the mobile station (MTT) sends its dynamic state parameters including at least the position and velocity, which are derived from the positioning measurements, to server (S), characterized in that

- the mobile station (MTT) computes an error criterion based on said sent dynamic state and current dynamic state, which is derived from new positioning measurements, such that the error criterion is calculated based on at least sent and current velocities,

the mobile station (MTT) sends a set of new dynamic state parameters, when the said error criterion is over a predefined limit.